ecology and environment, inc.
Global Environmental Specialists
720 Third Avenue, Suite 1700
Seattle, Washington 98104
Tel: (206) 624-9537, Fax: (206) 621-9832

September 30, 2015

Michael Sibley, On-Scene Coordinator
United States Environmental Protection Agency
1200 6th Ave., Suite 900
Seattle, WA. 98101

Re: Contract Number: EP-S7-13-07
Technical Direction Document Number: 15-03-0004
Final Odessa Biodiesel Site-Specific Sampling Plan and Site-Specific Data Management Plan

Dear Mr. Sibley:

Enclosed please find the final Site-Specific Sampling Plan and Site-Specific Data Management Plan for the Odessa Biodiesel site, which is located in Odessa, WA. If you have any questions regarding this submittal, please call me at (206) 624-9537.

Sincerely,
ECOLOGY AND ENVIRONMENT, INC.

Brad Martin

Brad H. Martin
START-IV Project Leader

cc: David Burford, Project Manager, E & E, Seattle, WA

This page intentionally left blank.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

OFFICE OF ENVIRONMENTAL CLEANUP
EMERGENCY RESPONSE UNIT

Site Specific Sampling Plan

Project Name: Odessa Biodiesel Site Site ID: 10NV

Author: David Burford Company: E&E Date Completed: 3/19/2015

This Site Specific Sampling Plan (SSSP) is prepared and used in conjunction with the Quality Assurance Plan (QAP) for the Emergency Response Unit for collecting samples during this Removal Program project. The information contained herein is based on the information available at the time of preparation. As better information becomes available, this SSSP will be adjusted.

When inadequate time is available for preparing the SSSP in advance of the sampling event, a Field Sampling Form may be prepared on-site immediately prior to sampling. This full length version of the SSSP is written after the sampling event and the completed Field Sampling Form attached to it.

The Site Specific Data Management Plan (SSDMP) is included with this SSSP as Attachment 1.

1. Approvals

Name, Title	Telephone, Email, Address	Signature
Mike Sibley **On-Scene Coordinator**	206-553-1886 Sibley.Michael@epa.gov USEPA-Region 10 1200 6th Ave., Suite 900 Seattle, WA. 98101	
Kathy Parker **EMP Quality Assurance Coordinator**	206-553-0062, parker.kathy@epa.gov, USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	Kathy Parker Digitally signed by Kathy Parker Date: 2015.10.13 08:58:29 -07'00'

I. Project Management and Organization

2. Personnel and Roles involved in the project:

Name	Telephone, Email, Company, Address	Project Role	Data Recipient
Mike Sibley	206-553-1886, Sibley.Michael@epa.gov USEPA-Region 10 1200 6th Ave., Suite 900 Seattle, WA. 98101	On Scene Coordinator	Yes
David Burford	206-624-9537 x3632, dburford@ene.com Ecology and Environment, Inc. 720 Third Ave, Suite 1700, Seattle, WA 98104	START Project Manager	Yes
Kathy Parker	206-553-0062, parker.kathy@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	EMP Quality Assurance Coordinator	No
Mark Woodke	206-624-9537, mwoodke@ene.com Ecology and Environment, Inc. 720 Third Ave, Suite 1700, Seattle, WA 98104	START Quality Assurance Reviewer	No

John Fowler	303-462-9103, Fowler.John@epa.gov EPA NEIC, Building 25 Entrance E-3 Denver CO, 80225	EPA NEIC Lab Contact	Yes

3. Physical Description and Site Contact Information:

Site Name	Odessa Biodiesel Site	
Site Location	206 W Railroad Street, Odessa WA The site is located in a lightly populated area on the North side of Odessa, WA. The site is an abandoned commercial biodiesel facility surrounding by rural residences, small commercial establishments, and open rangeland. The site drains to Duck/Crab Creek which flows towards the southeast along the western side of the site property. The site is elevated about 10 feet above the bank of Duck/Crab Creek. The site is easily accessible by work trucks by a paved and dirt road. The site work area is generally level ground with limited to no vegetation.	
Property Size	~4 acres	
Site Contact	Stacy Rasmussen	OPDA
Nearest Residents	Adjacent Properties	**Direction:** North East
Primary Land Uses Surrounding the Site	Railroad Access, Residential, Recreational (fishing stream), and Commercial Farming	

4. The proposed schedule of project work follows:

Activity	Estimated Start Date	Estimated Completion Date	Comments
SSSP Review/Approval	3/11/2015	3/19/2015	
Mobilize to / Demobilize from Site	3/17/2015	3/25/2015	
Sample Collection	3/19/2015	3/19/2015	
Laboratory Sample Receipt	3/24/2015	TBD	
Laboratory Analysis	TBD	TBD	
Data Validation	TBD	TBD	

5. Historical and Background Information

Describe briefly what you know about the site that is relevant to sampling and analysis for this investigation.

In June 2014, Transmessis Columbia Plateau, LLC. abandoned their biodiesel production facility in Odessa, WA. The building and property is currently owned by Odessa Public Development Authority (OPDA). On March 3 and 10, Washington Department of Ecology (Ecology) performed a site walk documenting the conditions of the building and surrounds. The site contained an estimated 1,000 containers of various industrial and laboratory chemicals. The containers were various sizes up to 55 gallon drums, and were in various conditions from intact to punctured and leaking. Chemicals had, and were continuing to discharge to the environment at the site, primarily to the land surface. Commercial grade chemicals are primarily located outside on the property in large above ground storage tanks and 55 gal drums. Lab grade chemicals are located in an onsite laboratory in a property building. Several large (15,000+ gal) tanks are on site containing various process chemicals.

6. Conceptual Site Model

Example: Contaminant: Mercury
Transport Mechanism: vapor moving on air currents
Receptors: people living in the house

Contaminants:
Numerous known and unknown chemicals, including metals, flammables, corrosives, and reactive or oxidative agents. Known chemicals include: methanol, glycerin, sodium methylate, sodium hydroxide, sodium methoxide

Transport Mechanisms:
Vapors in air or releases to ground or surface water due to spills or reacting chemicals in containers. The ground is visibly impacted under and around containers on site. There is a nearby creek that adjoins the property.

Receptors:
Workers and residents adjoining the property. Wildlife transiting the area or utilizing the nearby creek.

7. Decision Statement

Examples: 1) Determine whether surface contamination exceeds the established action level;
2) Determine appropriate disposal options for contaminated materials.

The decision(s) to be made from this investigation is/are to:

- Determine if contaminated materials and/or containerized materials exhibit characteristics of hazardous wastes.

8. Action Level

State the analyte, concentration, and units for each selected action level. Describe the rationale for choosing each action level and its source (i.e. MTCA, PRG, ATSDR, etc.) Example: The action level for total mercury in soil is 6.7 mg/kg (from Regional Screening Level residential).

Ignitable liquid/vapors or flammable liquid with flashpoint <140 degrees Fahrenheit (F)

Combustible liquid with flashpoint >140 degrees and < 200 degrees F

Corrosive if pH less than or equal to 2 or greater than or equal to 12.5

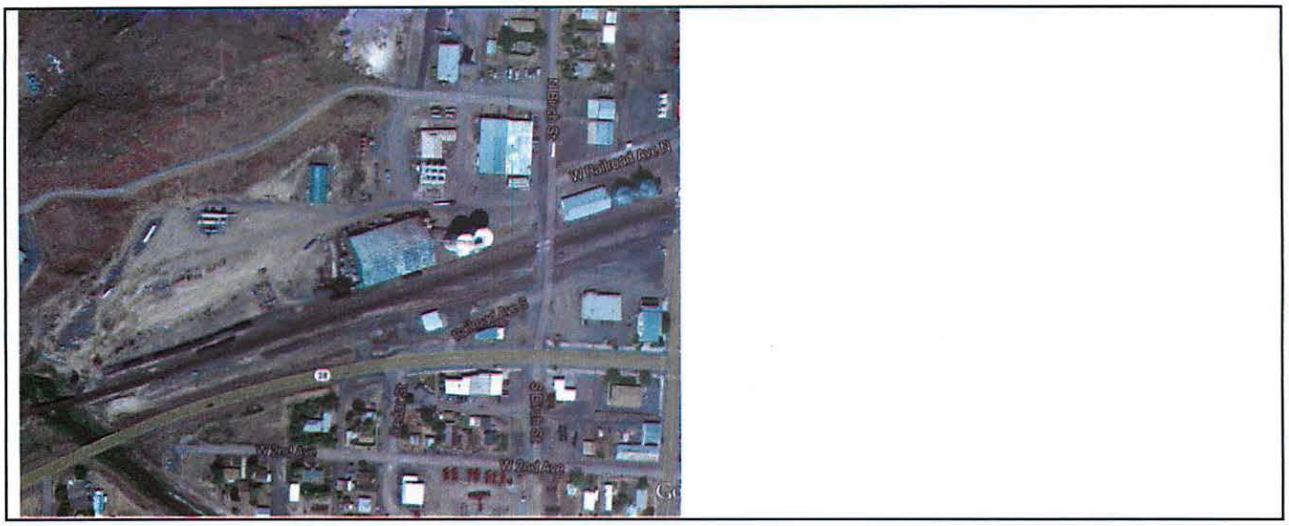
II. Data Acquisition and Measurement Objectives

9. Site Diagram and Sampling Areas

A Sampling Area is an area within in which a specific action will be performed.
Examples : 1) Each drum on the site is a Sampling Area;
2) Each section of sidewalk in front of the residence is a Sampling Area;
3) Each sampling grid section is a Sampling Area.

- Each unknown/unlabeled container or lot of similar containers on site is a sampling area for First Step hazard classification. All unknown/unlabeled containers will be secured and staged awaiting First Step results.
- ERRS will direct sampling for disposal purposes
- (b) (7)(A)
- Two samples will be collected from each lot of similar containers for First Step hazard classification to determine if the lot contains similar product.
- Labeled containers will not be sampled if the contents appear to be unaltered.

A map of the site is provided below:



10. The Decision Rules

These can be written as logical If…, Then.. statements. Describe how the decisions will be made and how to address results falling within the error range of the action level. Examples: 1) In the Old Furnace Sampling Area, the soil in the area around the furnace structure will be excavated until sample analysis with XRF shows no mercury concentrations in surface soil above the lower limit of the error associated with the action level, 18.4 mg/kg. 2) If the concentrations of contaminants in a SA are less than the lower limit of the error associated with the action level, then the area may be characterized as not posing an unacceptable risk to human health or the environment and may be dismissed from additional RP activities. The area may be referred to other Federal, State or Local government agencies.

The following statement(s) describe the decision rules to apply to this investigation:

- If a material is determined to be hazardous waste based on hazard categorization testing and/or field instrument identification or if materials exceed applicable action levels, the materials may be characterized as posing an unacceptable risk to human health or the environment and may be subject to additional Removal Program activities.
- If a material is not determined to be hazardous waste based on hazard categorization testing and/or field instrument identification or if materials do not exceed applicable action levels, the materials may be characterized as not posing an unacceptable risk to human health or the environment and may or may not be subject to additional Removal Program activities.
- First Step results will be given to the Emergency and Rapid Response Services (ERRS) contractor for segregation, packaging, transport and disposal. The OSC will determine if additional sampling or off-site analysis is required.

11. Information Needed for the Decision Rule

What information needs to be collected to make the decisions – this includes non-sampling info as well: action levels, climate history, direction of water flow, etc. Examples: Current and future on-site and off-site land use; wind direction, humidity and ambient temperature; contaminant concentrations in surface soil.

The following statement(s) describe the decision rules to apply to this investigation:

Samples from discrete containers (or lots) must be collected and analyzed to inform decision making.

12. Sampling and Analysis

For each SA, describe:

1. sampling pattern (random, targeted, scheme for composite)
2. number of samples, how many to be collected from where, and why
3. sample type (grab, composite)
4. matrix (air, water, soil)
5. analytes and analytical methods
6. name and locations of off-site laboratories, if applicable.

1. Targeted samples of unknown/unlabeled containers
2. Number to be determined
3. Grab
4. Product
5. First step hazard classification testing (analyses may include: presence of water, Water Solubility, reactivity, pH, Oxidizer, Sulfide, Cyanide, Flammability, Beilstein, iodine saturation, char test)
6. (b) (7)(A) [redacted]

13. Applicability of Data (place an X in front of the data categories needed, explain with comments)

Do the decisions to be made from the data require that the analytical data be:
1) definitive data, 2) screening data (with definitive confirmation) or 3) screening data (without definitive confirmation)?

*_X_**A) Definitive data** is analytical data of sufficient quality for final decision-making. To produce definitive data on-site or off-site, the field or lab analysis will have passed full Quality Control (QC) requirements (continuing calibration checks, Method Detection Limit (MDL) study, field duplicate samples, field blank, matrix spikes, lab duplicate samples, and other method-specific QC such as surrogates) AND the analyst will have passed a Precision and Recovery (PAR) study AND the instrument will have a valid Performance Evaluation sample on file. This category of data is suitable for: **1) enforcement purposes, 2) determination of extent of contamination, 3) disposal, 4) RP verification or 5) cleanup confirmation.***
Comments:

*_X_**B) Screening data with definitive confirmation** is analytical data that may be used **to support preliminary or intermediate decision-making** until confirmed by definitive data. However, even after confirmation, this data is often not as precise as definitive data. To produce this category of data, the analyst will have passed a PAR study to determine analytical error AND 10% of the samples are split and analyzed by a method that produced definitive data with a minimum of three samples above the action level and three samples below it.*
Comments:

*__X_**C) Screening data** is analytical data which has not been confirmed by definitive data. The QC requirements are limited to an MDL study and continuing calibration checks. This data can be used for making decisions: **1) in emergencies, 2) for health and safety screening, 3) to supplement other analytical data, 4) to determine where to collect samples, 5) for waste profiling, and 6) for preliminary identification of pollutants**. This data is not of sufficient quality for final decision-making.*
Comments:

14. Special Sampling or Analysis Directions

Describe any special directions for the planned sampling and analysis such as additional quality controls or sample preparation issues. Examples: 1) XRF and Lumex for sediment will be calibrated before each day of use and checked with a second source standard. 2) A field blank will be analyzed with each calibration to confirm the concentration of non-detection. 3) A Method Detection Limit determination will be performed prior to the start of analysis so that the lower quantitation limit can be determined. 4) If particle size is too large for accurate analyses, the samples will be ground prior to analysis. If the sample contains too much moisture for accurate analyses, the sample will be decanted and air dried prior to analysis.

- Container exteriors and any openings will be initially screened with a MultiRAE Pro combination PID/LEL/oxygen meter.
- Hazard category testing will be performed by trained START personnel.

15. Method Requirements

[Describe the restrictions to be considered in choosing an analytical method due to the need to meet specific regulations, policies, ARARs, and other analytical needs. Examples: 1) Methods must meet USEPA Drinking Water Program requirements. 2) Methods must achieve lower quantitation limits of less than 1/10 the action levels.3) Methods must be performed exactly as written without modification by the analytical laboratory.]

- Methods must be able to determine if the container contents are characteristic hazardous wastes per the Resource Conservation and Recovery Act (RCRA; 40 CFR Part 261).
- Segregation, packaging, labeling, placarding and transportation requirements to meet DOT regulations.

16. Sample Collection Information

[Describe any activities that will be performed related to sample collection]

The applicable sample collection Standard Operating Procedures (SOPs) or methods will be followed and include:

- Field Activity Logbook SOP
- First Step/Hazard Categorization Procedures
- Hazardous Waste Site Entry and Egress SOP
- MultiRAE Quick Start Guide (QSG)/Manufacturer's Instructions
- Ludlum 192 QSG/Manufacturer's Instructions
- Drum Sampling SOP
- Sampling Equipment Decontamination SOP
- Sample Packaging SOP

START will also follow NEIC documentation when collecting samples for NEIC:

- NEICPROC/00-048R1 Container Sampling
- NEICPROC/00-059R3 Evidence Management

17. Optimization of Sampling Plan (Maximizing Data Quality While Minimizing Time and Cost)

[Describe what choices were made to reduce cost of sampling while meeting the needed level of data quality. Example: The XRF will be used in situ whenever possible to achieve accurate results. Reproducibility and accuracy of in situ XRF analyses will be checked by collecting, air drying, analyzing and comparing five in situ samples at the start of sampling. Where interferences are suspected, steps will be taken to eliminate the interferences by mechanisms such as drying, grinding or sieving the samples or analyzing them using the Lumex with soil attachment.]

Field analytical methods for EPA First Step Hazard Categorization SOPs will be performed in the field to provide real-time field decisions and chemical segregation on site for ERRS.

The format for sample number identification is summarized in Table 1. Sample collection and analysis information is summarized in Table 2.

Table 1
SAMPLE CODING

Project Name: Odessa Biodiesel **Site ID:** 10NV

SAMPLE NUMBER [1]		
Digits	**Description**	**Code (Example)**
8 digits	EPA 8 digit code	15030001

SAMPLE NAME / LOCATION ID [2] ***(Optional)***		
1,2	Sampling Area	BG – Background BK - Bucket DR – Drum TT – Tote TK – Tank BT – Tote Bag SI – Surface Impoundment TB – Trip Blank WP – Waste Pile
3,4	Consecutive Sample Number	01 – First sample of Sampling Area
5,6	Matrix Code	AR – Air GW – Groundwater PR – Product SB – Subsurface Soil SD – Sediment SS – Surface Soil SW – Surface Water QC – Quality Control WT – Water

Notes:
(1) The Sample Number is a unique, 8-digit number assigned to each sample.
(2) The Sample Name or Location ID is an optional identifier that can be used to further describe each sample or sample location.

Table 2. Sampling and Analysis

Data Quality	Sampling Area	Matrix	Sampling Pattern	Sample Type	Data Quality	Number of Field Samples	Analyte or Parameter	Method Number	Action Level	Method Quant. Limit	#/type of Sample Containers per Sample	Preservative	Hold Time	Field QC
Field Screening	All Decision Areas	Product	Targeted	Grab	Screening	TBD	HazCat/First-Step tests (presence of water, Water Solubility, reactivity, pH, Oxidizer, Sulfide, Cyanide, Flammability, Beilstein, iodine saturation, char test)	HazCat	Ignitable Material: Flashpoint <140 (F) Flammable liquid: Flashpoint <140 (F) Combustible liquid FP >140 (F) and < 200 (F). Corrosive: pH ≤2 or ≥ 12.5	N/A	1 x 4 oz jar	N/A	N/A	None
Lab Analysis	All Decision Areas	Product	Targeted	Grab	Definitive	17	TBD	TBD by NEIC	TBD	TBD	2 x 8oz jar	N/A	N/A	Duplicate

Note: For matrix spike and/or duplicate samples, no extra volume is required for air (unless co-located samples are collected), oil, product, or soil samples except soil VOC or NWTPH-Gx samples (triple volume). Triple volume is also required for organic water samples (double volume for inorganic).

III. Assessment and Response

A Sample Plan Alteration Form (SPAF) will be used to describe project discrepancies (if any) that occur between planned project activities listed in the final SSSP and actual project work. The completed SPAF will be approved by the OSC and QAC and appended to the original SSSP.

A Field Sampling Form (FSF) may be used to capture the sampling and analysis scheme for emergency responses in the field and then the FSF pages can be inserted into the appropriate areas of the final SSSP.

Corrective actions will be assessed by the sampling team and others involved in the sampling and a corrective action report describing the problem, solution, and recommendations will be forwarded to the OSC and the ERU QAC.

IV. Data Validation and Usability

The sample collection data will be entered into Scribe and Scribe will be used to print lab Chains of Custody. Results of field and lab analyses will be entered into Scribe as they are received and uploaded to Scibe.net when the sampling and analysis has been completed.

18. Data Validation or Verification will be performed by:

ERU's general recommendation on validation is that a minimum of CLP-equivalent stage IIA verification and validation be performed for every SSSP involving laboratory analyses. However, stage IIB is preferred if the lab can provide it. Dioxins should be validated at CLP-equivalent stage 4.

	Data Verification and Validation Stages						
Performed by:	I	IIA	IIB	III	IV	Verification	Other:
E and E QA Reviewer							
EPA Region 10 QA Office							
MEL staff							
Other:							

This page intentionally left blank.

Attachment 1

Site Specific Data Management Plan

This page intentionally left blank.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 1200 Sixth Avenue, Suite 900 Seattle, Washington 98101-3140 OFFICE OF ENVIRONMENTAL CLEANUP EMERGENCY RESPONSE UNIT	**Region 10 Site-Specific Data Management Plan**			
	Project Name:	TransMessis Columbia Plateau	**TDD Number/Site ID:**	15-03-0004
	Author:	David Burford	**Company:**	Ecology & Environment, Inc
	Date Initiated:	March 11, 2015	**Last Updated:**	March 18, 2015

This data management plan (DMP) is intended to provide guidance for data collection by field personnel and subsequent data management activities. The data collection and management practices presented in this plan are designed to ensure data integrity and consistency for all data collection personnel and from operational period to the next. Listed in this DMP are data elements, data collection equipment, and data management processes, and end-use products appropriate for supporting the EPA On-Scene Coordinator (OSC). Electronic tools and files used during data management at the site may include a GPS with a data dictionary to gather site specific data, EDD files for laboratory results, an XRF database used to validate the data, field monitoring equipment (such as air monitoring equipment), a SCRIBE database to manage all field data and analytical results, and ArcGIS to manage geospatial data. Manual data entry or Excel spreadsheets will be used to incorporate field notes and historic data when electronic data is not available.

Planning:

DQO #	Decision	Output	Data Stream	Tool/Instrument	Meet Decision?	Meet Output?
1	Inventory and track onsite containers/storage locations for determination of fate	Container Inventory	Container Inventory	Data Recon Devices	Y	Y
2	Determine hazards of chemicals for disposal	HazCat Results	HazCat Results	Data Recon Devices	Y	Y

Data Processing

The following table outlines the specific requirements for various data types being collected during the project.

DQO #	Data Source	Required Information	Processing Instructions	Processing Frequency	Processing Responsibility	Storage Location	Final Output [format]
	Site Documents	Site files, SSSP, SSDMP, logbook	File hard copies and electronic copies in indicated storage location	Beginning of project, and as needed	Project Manager	**Digital: Comms Time Capsule** **Hard Copy:** Site Doc Box	Site file deliverable
	Scribe	Scribe .mdb	Publish to scribe.net	Daily or as needed	Project Manager	\02 Execution\SCRIBE	scribe.net **Project ID:** Enter here Scribe .mdb file
	Digital Photos	Date, Device ID, Time, Direction, Description, Photographer	Photos will be downloaded from field cameras and exported from Filemaker Files and stored in site files	Daily	Data Manager	\02 Execution\Photos	Photos [.jpg], Photographic log [.xls]
	Sample Information	Sample No, Date, Time, Sampler, Location	Record into Scribe as needed	As Samples are added	Project Manager	Scribe	Chain-of-Custody forms, labels, tabular reports, and/or maps
	GPS	Location, latitude, longitude	Data will be processed according to the GPS Data Processing SOP and uploaded into Scribe	Conclusion of project	Project Manager and GIS Analyst	**Data:** Scribe **Raw:** \02 Execution\GIS	Tabular reports [.xls] and/or maps [.pdf]

DQO #	Data Source	Required Information	Processing Instructions	Processing Frequency	Processing Responsibility	Storage Location	Final Output [format]
	MultiRAE Pro	InstrumentID, Location, Mon_Time, Mon_Date, Mon_Parameter, Mon_Measurement Mon_Meas_Units	Import into Scribe according to applicable Data Processing Guides	Conclusion of project or as needed	Project Manager	Scribe	Tabular reports [.xls]
	TVA 1000	InstrumentID, Location, Mon_Time, Mon_Date, Mon_Parameter, Mon_Measurement Mon_Meas_Units	Import into Scribe according to applicable Data Processing Guides	Conclusion of project or as needed	Project Manager	Scribe	Tabular reports [.xls]
1	Container Inventory	Container ID, size, percent full, and Hazard Category (if labeled). Containers will be inventoried by lots where possible.	Incorporate new and updated records into the master Container Inventory Database. Join HazCat results to file. Perform a daily backup.	Daily	Project Manager	\02 Execution\Field Forms\ Inventory	Database [.fmp12]
2	HazCat Results	All FirstStep parameters	Filemaker file will be exported from the data collection device and imported into the master database.	Daily	Data Manager	02 Execution\Field Forms\HazCat	Database [.fmp12] Tabular reports [.xls]

All electronic files will be written to a CD-ROM or DVD and provided to the Task Monitor. Hard copy files will be assembled and provided to the Task Monitor. Hard copy files will include, but are not limited to logbooks and field forms.

Reporting Requirements

Reporting Task	Data Inputs	Deliverables Format	Frequency	Responsibility
Container Inventory Report	Container Inventory	Report [.pdf]	Daily	Data Management
HazCat Results from ERRS	HazCat Results	Table [.xls]	Daily	Data management

Document Revision Summary

Revision	Date	Description of change
Initial Release (V 1.0)	3/11/15	Updated Format
1.1	3/18/15	Removed instrumentation not on site